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**THE NATURE OF INHERITANCE OF SIMPLE QUANTITATIVE
TRAITS FOR PRODUCTIVITY IN WINTER RAPE**

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Annotation: The results of studies on the manifestation of inheritance of simple quantitative traits are presented. The main for breeding studies of winter rape for productivity are the following traits - the number of pods per plant, the number of shoots of the first and second order, pod length and the number of seeds per pod. When using the maternal form of Chn 66, a significant effect on the traits of F1 hybrids was observed.

Key words: winter rape, genotypes, quantitative traits, productivity.

Rape has a significant genotypic potential for variability in valuable traits. The main task for breeding is the selection of forms of rapeseed for productivity and early maturity, which is achieved by combining in the genotype of simple quantitative traits that make up the productivity during the growing season. Identification and creation of donors and sources of valuable economic traits combined with productivity is the main goal of research. The efficiency of selection of parental pairs for crossing depends on the knowledge of inheritance patterns, variability and interrelationships of productivity. The main for all areas of research are the following traits that affect the formation of a model of a variety with high

productivity: compact type of plant, increasing the length of the pod, the number of pods on the main shoot and seeds in the pod and others.

Genotypes that for generations consistently show a high level of productivity for simple quantitative traits are valuable for breeding work. The analysis of the results on simple quantitative traits gave an understanding of the differences in the formation of productivity in different genotypes of F1 hybrids and their parental forms and to identify the relationship between the manifestation of traits.

The manifestation of simple quantitative traits in the forms of the working collection revealed that the first generation hybrids did not always inherit a high level of productivity traits. In F1 hybrids and male form Chn 66 there was a close direct and inverse correlation. High and medium negative correlation was observed for height with the number of pods per plant in hybrids and the number of shoots of the first and second order ($r = -0.50-0.98$). When creating hybrids with the participation of parental form Chn 66 should be involved in hybridization plants with lower height. There was a close negative correlation between the number of shoots of the first and second order of the parental form Chn 66 and the number of seeds per pod and pod length in F1 hybrid ($r=0.81$). Between the length of the pod in the hybrid and the number of shoots in the parental form was observed medium and insignificant relationship of traits ($r = 0.53$), indicating a slight influence on the trait of the parental form.

When using the mother form Chn 66, a greater influence on the traits of F1 hybrids was observed. Pod length and number of seeds per pod in the hybrid correlate with the number of shoots in the mother form ($r=0.79$). The number of seeds per pod in the hybrid is negatively correlated with the pod length in the mother form ($r=-0.87$).

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